

CLAIM AMENDMENTS

Please replace the claims with the following list of claims:

LISTING OF CLAIMS

1-20. (Canceled)

21. (Currently Amended) An electrode carrier guide apparatus for a cochlear implant comprising:

~~an elongated and substantially flat electrode carrier guide comprising:~~

a plurality of electrodes, wherein each electrode is connected to a corresponding contact through a conducting track; and

at least two overlapping basic cells, the basic cells comprising:

a base layer made of electrically insulating material; and

a layer of electrically conducting material arranged on the base layer;

wherein the electrode carrier guide is elongated and substantially flat, and
wherein the electrodes, conducting tracks, and contacts are formed from the electrically conducting material.

22. (Currently Amended) The apparatus-electrode carrier guide of claim 21, wherein the two overlapping basic cells comprise an overlying and an underlying basic cell, and wherein the overlying basic cell has a length shorter than the length of the underlying basic cell and covers the underlying basic cell, except for an electrode region at one end

of said underlying cell in which the electrodes are located, and a contact region at the

opposite end of said underlying cell in which the contacts are located.

23. (Currently Amended) The electrode carrier guide apparatus of claim 22, wherein the basic cell comprises an insulating layer arranged on the electrically conducting layer, wherein the insulating layer comprises access openings in correspondence with each electrode and the corresponding contact.

24. (Currently Amended) The electrode carrier guide apparatus of claim 23, wherein the insulating layer of the underlying cell comprises the base layer of the overlying cell.

25. (Currently Amended) The electrode carrier guide apparatus of claim 21 claim 22, wherein at least two cells comprise three electrodes essentially aligned in a longitudinal direction of the cells.

26. (Currently Amended) The electrode carrier guide apparatus of claim 21 claim 22, wherein the width of the basic cells ranges from 0.3 mm to 2.5 mm.

27. (Currently Amended) The electrode carrier guide apparatus of claim 21 claim 22, wherein the thickness of the base layer ranges from 2 μ m to 5 μ m and the thickness of the electrically conductive layer ranges from 0.1 μ m to 0.5 μ m.

28. (Currently Amended) The electrode carrier guide apparatus-of-claim 21 claim 22, wherein the distance between the electrodes of the basic cells range from 0.25 μm to 10 μm .

29. (Currently Amended) The electrode carrier guide apparatus-of-claim 21 claim 22, wherein the basic cells narrow in the longitudinal portion where the electrodes are arranged.

30. (Currently Amended) The electrode carrier guide apparatus-of-claim 21 claim 22, wherein the base layer material is selected from the group consisting of PTFE, PET, polyimide polyimide, silicone and paraxylene based polymers.

31. (Currently Amended) The electrode carrier guide apparatus-of-claim 21 claim 22, wherein the electrically conducting layer is made of a material selected from the group consisting of gold, platinum and platinum-iridium alloy.

32. (Currently Amended) The electrode carrier guide apparatus-of-claim 21 claim 22, wherein each-at least one cell comprises a film made of a material suitable for enhancing adherence, wherein the film is arranged between the base layer and the electrically conducting layer of said cell.

33. (Currently Amended) The electrode carrier guide apparatus of claim 32, wherein the film is selected from the group comprising titanium, tantalum and chrome.

34. (Currently Amended) A cochlear implant comprising the electrode carrier guide
~~The apparatus of claim 21, wherein the apparatus comprises a cochlear implant of claim~~
~~22.~~

35. (Withdrawn) A method for manufacturing an electrode carrier guide comprising:
forming a basic cell by:

preparing a sacrificial wafer;

depositing a base layer made of an electrically insulating material on the wafer;

depositing a layer of photosensitive resin on the electrically insulating layer;
photolithographically designing a region comprising a geometry of electrodes,
tracks and contacts;

depositing a layer made of an electrically conducting material onto the resin
layer;

removing the resin and electrically conducting material deposited outside the
photolithographically designed region;

depositing a second electrically insulating layer onto the electrically conducting
layer, wherein the second electrically insulating layer completely covers the
electrically conducting layer;

forming access windows in the second electrically insulating layer, wherein the access windows provide access to the underlying electrodes and contacts; repeating steps b-h to form more than one basic cell; and removing the sacrificial wafer.

36. (Withdrawn) The method of claim 35, further comprising forming at least two electrode guides on the wafer.
37. (Withdrawn) The method of claim 36, further comprising: separating the at least two electrode guides by cutting the wafer.
38. (Withdrawn) The method of claim 36, further comprising: forming guide access windows for removing the electrically insulating material located between the adjacent electrode guides, wherein the removed electrically insulating material separates the guides.
39. (Withdrawn) The method of claim 35, wherein at least one of the layers formed in the method is cured.

40. (Withdrawn) The method of claim 35, further comprising depositing a film of a material suitable for enhancing adherence between the resin layer and the electrically conducting material.

41. (New) A method for manufacturing an electrode carrier guide for a cochlear implant comprising:

 a first step of forming a basic cell having the following sub-steps:

 preparing a sacrificial wafer;

 depositing a base layer made of an electrically insulating material on the wafer;

 depositing a layer of photosensitive resin on the electrically insulating layer;

 photolithographically designing a region comprising a geometry of electrodes, conducting tracks, and contacts;

 depositing a layer made of an electrically conducting material onto the resin layer;

 removing the resin and electrically conducting material deposited outside the photolithographically designed region;

 depositing a second electrically insulating layer onto the electrically conducting layer, wherein the second electrically insulating layer completely covers the electrically conducting layer;

forming access windows in the second electrically insulating layer, wherein the access windows provide access to the underlying electrodes and contacts.

repeating the depositing a photosensitive resin sub-step to the forming access windows sub-step to form at least two basic cells; and

removing the sacrificial wafer;

wherein the electrode carrier guide is elongated and substantially flat, and further wherein each electrode is connected to a corresponding contact through a conducting track.

42. (New) The method of claim 41, further comprising:

forming two overlapping basic cells comprising an overlying and an underlying basic cell, wherein the overlying basic cell has a length shorter than the length of the underlying basic cell and covers the underlying basic cell, except for an electrode region at one end of said underlying cell in which the electrodes are located, and a contact region at the opposite region at the opposite end of said underlying cell in which the contacts are located.

43. (New) The method of claim 42, further comprising:

forming at least two electrode guides on the wafer.

44. (New) The method of claim 43, further comprising:

separating the at least two electrode carrier guides by cutting the wafer.

45. (New) The method of claim 42, further comprising:

curing at least one of the deposited layers.

46. (New) The method of claim 42, further comprising:

depositing a film of material suitable for enhancing adherence, wherein the film is arranged between the base layer and the electrically conducting material of at least one cell.